



Date: April 19, 2017

To: State Legislative Committee Members

From: Patrick H. West, City Manager 

Subject: AB 655 (O'Donnell): Classification for Waste-to-Energy Facilities

Introduction

As part of the 2017 Legislative Session, the City of Long Beach is co-sponsoring AB 655 (O'Donnell) with the International Brotherhood of Electrical Workers and Covanta Energy.

AB 655 seeks to classify energy produced by waste-to-energy facilities that operate on an annual basis at not less than 20 percent below air permit limits, and have reported emissions to the applicable air quality management district for a period of not less than five years, as renewable energy. This limited definition applies to waste-to-energy facilities in Long Beach, Commerce, and Stanislaus County. For more information on AB 655, please see the attached fact sheet, letter of support, and legislative language.

Background

The City of Long Beach, in partnership with the Los Angeles County Sanitation District, owns the largest of the three existing waste-to-energy facilities in California. The South East Resource Recovery Facility (SERRF), which is operated by Covanta Energy, enables Long Beach to transform municipal solid waste into electricity, rather than send the waste to a landfill for disposal. Baseload energy that is produced at SERRF is sold to Southern California Edison (SCE) and loaded onto the regional electricity grid for use locally.

In comparing landfill waste disposal to disposal using waste-to-energy, the California Department of Resources Recycling and Recovery (CalRecycle) has found landfiling increases greenhouse gas emissions in California. The report, *CalRecycle Review of Waste-to-Energy and Avoided Landfill Methane Emissions*, published in 2012, concludes: "The three existing California WtE facilities provide net avoided methane emissions over waste otherwise disposed in a California landfill." SERRF processes 1,200 tons of waste daily, and while Long Beach is the primary user of the facility, the cities of Los Angeles, Torrance, Redondo Beach, Lakewood, Bellflower, Irvine, Norwalk, Cerritos, Lynwood, and Newport Beach also rely on the facility. In 2016, the total amount of waste transformed into energy from these 11 cities, totaled 319,000 tons.

SERRF also provides ancillary benefits, such as a partnership with federal, State, and local law enforcement agencies for narcotics disposal. The facility also

supports prescription drug take-back programs by providing a safe option for disposal. If SERRF were to shut down operations, narcotics and prescription drug take-back items would need to be shipped out-of-state for disposal.

Problem

While modern waste-to-energy facilities, such as SERRF, are scientifically proven to be superior in reducing greenhouse gas emissions, as compared to landfills, State law continues to provide more incentives for landfilling than waste-to-energy. Currently, energy produced from landfill gases is classified as renewable energy, whereas energy produced at waste-to-energy facilities is not classified as renewable. As a result, the landfill industry is able to negotiate more favorable pricing.

The City's current contract for energy sales to SCE sets the floor price at 9 cents per kilowatt hour, and revenues generated support operations and maintenance at SERRF. In December 2018, the City's contract with SCE will expire, and revenues will drop by about 31 percent or \$16 million annually, unless new market incentives are identified to enable Long Beach to achieve a new favorable contract. If new market incentives are not identified, SERRF will need to increase the existing tip fee of \$70 per ton by an additional \$35 per ton to make-up lost revenue. In comparison, contracted tip fees at nearby landfills, which generate power that is classified as renewable, averages \$35 per ton. Given these economic factors, the City anticipates waste haulers will increasingly choose to transport waste to landfills, instead of choosing waste-to-energy.

Solution

AB 655 seeks to classify energy produced by waste-to-energy facilities as renewable energy, thereby eliminating the disparity that exists between energy produced at landfills, and energy produced at waste-to-energy facilities. The renewable classification is important as an increasing number of electricity users are interested in citing the use of renewable energy. Of the 29 states in the United States that have a renewable portfolio standard, 23 states consider waste-to-energy resources as qualified renewable energy resources. While AB 655 does not provide Long Beach with direct funding, the change in energy classification is important when negotiating future energy contracts.

Next Steps

AB 655 is assigned to the Assembly Committee on Natural Resources, as well as the Assembly Appropriations Committee. It is set for hearing in the Assembly Committee on Natural Resources on April 24, 2017. The bill may also be referred to Assembly Committee on Utilities and Commerce.

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For more information, please contact Diana Tang, Manager of Government Affairs at (562) 570-6506.

cc: Mayor and Members of the City Council
Charles Parkin, City Attorney
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Douglas Haubert, City Prosecutor
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Anitra Dempsey, Interim Deputy City Manager
Bob Dowell, Director of Gas and Oil
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Attachment
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MAYOR ROBERT GARCIA
CITY OF LONG BEACH

March 30, 2017

The Honorable Patrick O'Donnell
California State Assembly
State Capitol, Room 2196
Sacramento, CA 95814

RE: Support for AB 655 (O'Donnell): California Renewables Portfolio Standard Program

Dear Assemblymember O'Donnell:

On behalf of the City of Long Beach, thank you for authoring AB 655. This legislation, jointly sponsored by the International Brotherhood of Electrical Workers (IBEW), Covanta Energy and the City of Long Beach, impacts only existing waste to energy facilities in California that have consistently operated at least 20 percent below permitted pollutant concentration limits over the past five-years. For these limited facilities, AB 655 would classify energy produced as renewable energy.

Published July 3, 2012, *CalRecycle Review of Waste-to-Energy and Avoided Landfill Methane Emissions*, concludes, "The three existing California waste-to-energy facilities provide net avoided methane emissions over waste otherwise disposed in a California landfill." Long Beach is proud to own and contract with Covanta Energy to operate the largest of these three waste-to-energy facilities in California. Municipal solid waste that is brought to the facilities is diverted from landfills, used as a fuel stock for producing green baseload energy, and then that energy is sold for a cost, with revenues returning to support operations and maintenance at the waste-to-energy facilities.

While the benefits of waste-to-energy, as compared to landfilling are numerous, inequities in existing State policies are severely threatening the economic viability of the facilities. The challenge is that revenue from energy sales at the facility in Long Beach will soon drop by over 70%, due to an expiring contract. Changes in the energy market since the original contract was signed have also impacted economics at the facility; throughout this time, the Southeast Resource Recovery Facility in Long Beach (SERRF) has been an asset to the City. Without legislative changes to enable marketability of the power produced at waste-to-energy facilities, the future viability of these facilities, including SERRF, will become unstable, with the potential for closure.

AB 655 presents an opportunity to bring equity to the energy market, as it relates to waste management. For years, energy produced by landfills has been classified as "renewable," whereas energy produced by waste-to-energy facilities have *not* been classified as renewable. This inequity has placed waste-to-energy facilities at a disadvantage when negotiating energy pricing in contracts. By classifying power produced at limited and qualifying waste-to-energy facilities as "renewable" energy, AB 655 would eliminate this inequity. This change in State law will enable waste-to-energy operators to negotiate energy contracts on a level playing-field with landfills.

Last but not least, AB 655 is also important for supporting the viability of narcotics disposal in California. Since 1988, Long Beach has been able to use our waste-to-energy to destroy 12.5 million pounds of confiscated narcotics and drug paraphernalia for over 200 cities, counties, and state and federal law enforcement agencies. As long as the facility remains economically viable, Long Beach will continue to provide this service. However, if the facility cannot remain economically viable, we will be forced to close SERRF, and not only will additional waste be sent to landfills, but California will no longer have any options for illegal narcotic disposal.

Given these reasons, the City of Long Beach is proud to partner with the IBEW and Covanta Energy to sponsor AB 655. Thank you for authoring this important piece of legislation.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Garcia', with a stylized flourish at the end.

Mayor Robert Garcia
City of Long Beach

cc: The Honorable Speaker Anthony Rendon, State Assembly
The Honorable Steven Bradford, State Senate, 35th District
The Honorable Ricardo Lara, State Senate, 33rd District
The Honorable Janet Nguyen, State Senate, 34th District
The Honorable Mike Gipson, State Assembly, 64th District
Assembly Committee on Natural Resources



AB 655 (O'DONNELL): WASTE-TO-ENERGY FACILITIES

RENEWABLE ENERGY CLASSIFICATION

April 2017

Introduction

AB 655 classifies energy produced by facilities that transform municipal solid waste as renewable energy. The bill applies specifically to facilities that operate, on an annual basis, at least 20 percent below pollutant concentration limits in the facility permit, and that have reported emissions data to the local air district for at least five years.

Background

The large volume of municipal solid waste that Californians generate has long presented an environmental challenge. Reduction, recycling and composting have helped reduce this trash stream, but Californians still send 30 million tons of waste to landfills annually. Even after reaching California's 75% recycling goal, an estimated 20 million tons of waste will still require management in 2020.

There are currently three transformation facilities in California that complement recycling efforts by diverting waste from landfills using transformation or thermal resource recovery. This technology is widely recognized as a tool that can help mitigate climate change relative to landfilling by providing a net reduction in methane emissions. This technology is internationally recognized as a source of greenhouse gas mitigation, including by the U.S. EPA, the Intergovernmental Panel on Climate Change ("IPCC"), the World Economic Forum, the European Union, CalRecycle, the California Air Resources Board, and the Center for American Progress. This GHG mitigation is achieved by displacing grid connected fossil-fuel fired electricity, recovering metals from the waste stream for recycling, and most importantly, by avoiding landfill emissions of methane, a key SLCP.

Long Beach and the Los Angeles County Sanitation Districts co-own the largest of the three facilities, known as the Southeast Resource Recovery Facility (SERRF), with a 2/3 to 1/3 split between the City and the Sanitation Districts, respectively. The other two facilities are the Stanislaus Resource Recovery Facility located in Stanislaus County, and the Commerce Refuse-to-Energy Facility located in the City of Commerce; the Los Angeles County Sanitation Districts also co-owns the facility in Commerce, along with the City of Commerce. Collectively, these three transformation facilities provide California with multiple environmental benefits including: carbon dioxide savings resulting from shorter transportation distances, a reduced need for landfilling that leads to avoiding landfill emissions of methane (one of the most potent greenhouse gases), and a clean source of low-to-zero carbon baseload energy produced through transformation of municipal solid waste, as recognized domestically or internationally, including but not limited to within the U.S. EPA Clean Power Plan or World Economic Forum standards. Published July 3, 2012, *CalRecycle Review of Waste-to-Energy and Avoided Landfill Methane Emissions*, concludes:

"The three existing California WtE facilities provide net avoided methane emissions over waste otherwise disposed in a California landfill."

The Problem

There has been a lack of recognition for environmental benefits from transformation of solid waste relative to landfills. Waste is recognized as a resource for renewable energy generation in California, but only at landfills. The same ton of waste taken to one of the three transformation facilities, it is not considered renewable. This is despite the fact that these facilities use the same waste stream as landfills,

reduce GHG emissions, and have extensive pollution control equipment and continuous emission monitoring not in place at landfills.

In addition, market conditions overwhelmingly favor landfilling. Landfills manage 97% of the waste in California are already a cheaper option than transformation. This affords the landfill industry the ability to set market pricing, which negatively impacts the sustainability of any alternative to landfilling. Furthermore, the lack of a renewable energy designation precludes transformation facilities from entering into new long term contracts which provide necessary stability to sustain their operations.

As a result of these market factors, the loss of long term power purchase agreements, the inability for facilities to enter into new long term contracts, and the failure of statewide recycling and climate change initiatives to recognize the environmental benefits from the transformation of municipal solid waste, waste-to-energy facilities face a very uncertain future in California.

The Solution

AB 655 seeks to recognize the environmental benefits attributable to municipal transformation facilities by classifying the energy produced at these facilities as renewable energy. This classification is consistent with the State's commitment to reduce landfilling, reduce greenhouse gas emissions, and reduce methane gas production.

For transformation facilities to be sustainable in California, the infrastructure must remain economically competitive with landfills. Being part of the RPS in California would put transformation facilities on a more equitable playing field with landfills. The facilities will still have to meet the least cost, best fit requirements in the existing RPS, and so no advantage is afforded – simply equity.

Bill Referrals

Assembly Natural Resources – Hearing date: April 17, 2017

Assembly Appropriations – Hearing date: TBD

Staff Contacts

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AB-655 California Renewables Portfolio Standard Program. (2017-2018)

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Date Published: 03/24/2017 04:00 AM

AMENDED IN ASSEMBLY MARCH 23, 2017

CALIFORNIA LEGISLATURE— 2017–2018 REGULAR SESSION

ASSEMBLY BILL

No. 655

Introduced by Assembly Member O'Donnell

February 14, 2017

An act to amend Section 399.12 of the Public Utilities Code, relating to energy.

LEGISLATIVE COUNSEL'S DIGEST

AB 655, as amended, O'Donnell. California Renewables Portfolio Standard Program.

The California Renewables Portfolio Standard Program requires the Public Utilities Commission to establish a renewables portfolio standard requiring all retail sellers, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources, as defined, so that the total kilowatthours *of these resources* sold to their retail end-use customers achieves 25% of retail sales by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. The program additionally requires each local publicly owned electric utility, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources to achieve the procurement requirements established by the program. *Existing law provides that a facility engaged in the combustion of municipal solid waste is not an eligible renewable energy resource, except as regards generation before January 1, 2017, from a facility located in Stanislaus County prior to September 26, 1996.*

This bill would ~~make nonsubstantive revisions to a definition applicable to the program.~~ *provide that a facility engaged in the transformation of municipal solid waste is an eligible renewable energy resource, and can earn renewable energy credits, if it operates, on an annual basis, at not less than 20% below the permitted emissions of air contaminants, or toxic air contaminants concentration limits, for the facility and the operator of the facility has reported its emissions to the applicable air pollution control district or air quality management district for a period of not less than 5 years, as specified.*

Vote: majority Appropriation: no Fiscal Committee: ~~no~~yes Local Program: no

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. *The Legislature finds and declares all of the following:*

(a) The large volume of municipal solid waste generated in the United States has long presented an environmental challenge.

(b) In California, state laws enacted over the past 15 years have driven systemic waste management changes so that the state now leads the nation in waste reduction and recycling.

(c) Over the years, waste reduction, recycling, and composting have helped reduce this trash stream, but Californians still send 30 million tons of waste to landfills annually. As a result, considerable opportunity still exists to reuse valuable materials, conserve energy, water, and other resources, and reduce emissions of greenhouse gases.

(d) Landfills are a major source of the short-lived climate pollutant methane. Methane is a potent greenhouse gas that is 28 to 34 times as strong as carbon dioxide over 100 years, according to the latest International Panel on Climate Change report.

(e) The State Air Resources Board, in its Proposed Short-Lived Climate Pollutant Reduction Strategy, has noted that the use of global warming potentials with a 20-year time horizon better captures the importance of short-lived climate pollutants. As such, the state board used a methane global warming potential (GWP), reflective of its short-term potency, of 72.

(f) Senate Bill No. 1383 (Chapter 395 of the Statutes of 2016) established a requirement that the state board begin implementing a comprehensive short-lived climate pollutant strategy to achieve a reduction in the statewide emissions of methane by 40 percent below 2013 levels by 2030, in part by reducing landfill deposit of organics with the target of a 75-percent reduction in the level of statewide disposal of organic waste from the 2014 level by 2025. These requirements are consistent with the state's policy goal established by Assembly Bill No. 341 (Chapter 476 of the Statutes of 2011) that not less than 75 percent of solid waste generated be source reduced, recycled, or composed by the year 2020.

(g) Source reduction, reuse, and recycling represent the highest rungs on the waste management hierarchy. Source reduction is the priority, as it results in little to no environmental impact. Recycling can result in emissions from the processing facilities, but the environmental impacts are generally significantly less than if the materials were to be created from virgin raw materials.

(h) However, not all types of materials can be practically and economically recycled in an environmentally beneficial manner with current technology. As a result, after these ecologically beneficial options have been maximized and exhausted, the remaining solid waste in California presents an opportunity as a potential source for energy recovery and additional means of methane reduction.

(i) Currently, there are three transformation facilities in California that complement recycling efforts by diverting waste from landfills, using waste-to-energy or thermal resource recovery.

(j) This technology is widely recognized as a tool that can help mitigate climate change relative to landfilling. A 2012 CalRecycle report, CalRecycle Review of Waste-to-Energy and Avoided Landfill Methane Emissions, concludes as follows: "The three existing California waste-to-energy facilities provide net avoided methane emissions over waste otherwise disposed in a California landfill." A subsequent 2014 analysis performed by State Air Resources Board staff stated as follows: "preliminary staff estimates ... [indicate] that combusting waste in three MSW Thermal facilities in California results in net negative GHG emissions." Both reports used long-term GWPs which have since been revised. Application of short-term GWPs, as is recommended by the state board for evaluation short-lived climate pollutants, only serves to bolster the reports' conclusions.

(k) The European Union has successfully and dramatically reduced emissions of greenhouse gases from waste management through the incorporation of energy recovery in its waste management hierarchy, implemented through a series of policy directives aimed at increasing recycling and reducing landfilling.

(l) Further, the United States Environmental Protection Agency has included waste-to-energy facilities as an eligible source of emission rate credits in the Clean Power Plan, a regulation for which California has signaled its support and prepared a state implementation plan.

(m) Of the 29 states that have a renewable portfolio standard, 23 of them count waste-to-energy resources as qualified renewable energy resources, including the State of Oregon.

(n) The state's climate policies, including the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code) and the Clean Energy and Pollution Reduction Act of 2015 (Chapter 547 of the Statutes of 2015), make reducing emissions of greenhouse gases a major priority of the State of California.

(o) In addition to mitigating emissions of greenhouse gases from landfill disposal, these waste-to-energy facilities complement intermittent renewable energy sources, such as wind and solar, to offset fossil fuel-based energy sources and associated emissions of greenhouse gases, provide for the secure destruction of narcotics, contraband, weapons, and unused pharmaceuticals, and recover ferrous and nonferrous metals for recycling.

(p) The three transformational facilities process 3 percent of the waste remaining after recycling, and thereby present no risk of overcapacity or competition with recycling relative to the state's 75-percent recycling goal.

(q) In addition to their capabilities for reducing emissions of greenhouse gases, the state's three waste-to-energy facilities also generate less than the allowable emissions under their permits as determined by air pollution control districts and air quality management districts. The three facilities are located in environmentally challenged regions of the state and also benefit communities by reducing the need for trucks to haul waste that is not being processed at one of the facilities long distances.

(r) In order for transformational facilities to be sustainable in California, they must remain economically competitive with landfills. Currently, state laws and regulatory systems support an environment that allows landfills to sustain a market share of 97 percent of the postrecycled waste management services provided in California. Because landfilling and transformation of waste by California's three existing waste-to-energy facilities are the only two options for treating postrecycled waste, and nearly all postrecycled waste enters landfills, the landfill industry is afforded the ability to set market pricing. These market factors negatively affect the sustainability of alternatives to landfilling, such as waste-to-energy, as well as the development of future alternatives to landfilling.

(s) Existing laws and regulations fail to recognize waste-to-energy's benefits relative to landfilling. Together with the loss of long-term electricity purchase agreements, the inability to enter into new long-term contracts, and low pricing on short-term electricity markets, including periods of negative pricing, waste-to-energy facilities face an uncertain future, which puts their benefits in jeopardy.

(t) Classifying facilities that transform municipal solid waste as eligible renewable energy resources if the facilities operate, on an annual basis, at least 20 percent below pollutant concentration limits in the facility permit and if the facility has reported its emissions to the local air pollution control district or air quality management district for at least five years, is consistent with the state's commitment to reduce landfilling, reducing emissions of greenhouse gases, and reducing methane gas leakage.

SECTION 4, SEC. 2. Section 399.12 of the Public Utilities Code is amended to read:

399.12. For purposes of this article, the following terms have the following meanings:

(a) "Conduit hydroelectric facility" means a facility for the generation of electricity that uses only the hydroelectric potential of an existing pipe, ditch, flume, siphon, tunnel, canal, or other manmade conduit that is operated to distribute water for a beneficial use.

(b) "Balancing authority" means the responsible entity that integrates resource plans ahead of time, maintains load-interchange generation balance within a balancing authority area, and supports interconnection frequency in real time.

(c) "Balancing authority area" means the collection of generation, transmission, and loads within the metered boundaries of the area within which the balancing authority maintains the electrical load-resource balance.

(d) "California balancing authority" is a balancing authority with control over a balancing authority area primarily located in this state and operating for retail sellers and local publicly owned electric utilities subject to the requirements of this article and includes the Independent System Operator (ISO) and a local publicly owned electric utility operating a transmission grid that is not under the operational control of the ISO. A California balancing authority is responsible for the operation of the transmission grid within its metered boundaries which is not limited by the political boundaries of the State of California.

(e) "Eligible renewable energy resource" means an electrical generating facility that meets the definition of a "renewable electrical generation facility" in Section 25741 of the Public Resources Code, subject to the following:

(1) (A) An existing small hydroelectric generation facility of 30 megawatts or less shall be eligible only if a retail seller or local publicly owned electric utility procured the electricity from the facility as of December 31, 2005. A new hydroelectric facility that commences generation of electricity after December 31, 2005, is not an eligible renewable energy resource if it will cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow.

(B) Notwithstanding subparagraph (A), a conduit hydroelectric facility of 30 megawatts or less that commenced operation before January 1, 2006, is an eligible renewable energy resource. A conduit hydroelectric facility of 30 megawatts or less that commences operation after December 31, 2005, is an eligible renewable energy resource so long as it does not cause an adverse impact on instream beneficial uses or cause a change in the volume or timing of streamflow.

(C) A facility approved by the governing board of a local publicly owned electric utility prior to June 1, 2010, for procurement to satisfy renewable energy procurement obligations adopted pursuant to former Section 387, shall be certified as an eligible renewable energy resource by the Energy Commission pursuant to this article, if the facility is a "renewable electrical generation facility" as defined in Section 25741 of the Public Resources Code.

(D) (i) A small hydroelectric generation unit with a nameplate capacity not exceeding 40 megawatts that is operated as part of a water supply or conveyance system is an eligible renewable energy resource only for the retail seller or local publicly owned electric utility that procured the electricity from the unit as of December 31, 2005. No unit shall be eligible pursuant to this subparagraph if an application for certification is submitted to the Energy Commission after January 1, 2013. Only one retail seller or local publicly owned electric utility shall be deemed to have procured electricity from a given unit as of December 31, 2005.

(ii) Notwithstanding clause (i), a local publicly owned electric utility that meets the criteria of subdivision (j) of Section 399.30 may sell to another local publicly owned electric utility electricity from small hydroelectric generation units that qualify as eligible renewable energy resources under clause (i), and that electricity may be used by the local publicly owned electric utility that purchased the electricity to meet its renewables portfolio standard procurement requirements. The total of all those sales from the utility shall be no greater than 100,000 megawatthours of electricity.

(iii) The amendments made to this subdivision by the act adding this subparagraph are intended to clarify existing law and apply from December 10, 2011.

(2) ~~(A) A facility engaged in the combustion transformation of municipal solid waste shall not be considered is an eligible renewable energy resource.~~ *resource if it operates, on an annual basis, at not less than 20 percent below the permitted emissions of air contaminants, or the toxic air contaminants concentration limits, for the facility and the operator of the facility has reported its emissions to the applicable air pollution control district or air quality management district for a period of not less than five years immediately before the determination that it is eligible.*

~~(B) Subparagraph (A) does not apply to generation before January 1, 2017, from a facility located in Stanislaus County that was operational prior to September 26, 1996.~~

(f) "Procure" means to acquire through ownership or contract.

(g) "Procurement entity" means any person or corporation authorized by the commission to enter into contracts to procure eligible renewable energy resources on behalf of customers of a retail seller pursuant to subdivision (f) of Section 399.13.

(h) (1) "Renewable energy credit" means a certificate of proof associated with the generation of electricity from an eligible renewable energy resource, issued through the accounting system established by the Energy Commission pursuant to Section 399.25, that one unit of electricity was generated and delivered by an eligible renewable energy resource.

(2) "Renewable energy credit" includes all renewable and environmental attributes associated with the production of electricity from the eligible renewable energy resource, except for an emissions reduction credit issued pursuant to Section 40709 of the Health and Safety Code and any credits or payments associated with the reduction of solid waste and treatment benefits created by the utilization of biomass or biogas fuels.

(3) (A) Electricity generated by an eligible renewable energy resource attributable to the use of nonrenewable fuels, beyond a de minimis quantity used to generate electricity in the same process through which the facility converts renewable fuel to electricity, shall not result in the creation of a renewable energy credit. The Energy Commission shall set the de minimis quantity of nonrenewable fuels for each renewable energy technology at a level of no more than 2 percent of the total quantity of fuel used by the technology to generate electricity. The Energy Commission may adjust the de minimis quantity for an individual facility, up to a maximum of 5 percent, if it finds that all of the following conditions are met:

(i) The facility demonstrates that the higher quantity of nonrenewable fuel will lead to an increase in generation from the eligible renewable energy facility that is significantly greater than generation from the nonrenewable fuel alone.

(ii) The facility demonstrates that the higher quantity of nonrenewable fuels will reduce the variability of its electrical output in a manner that results in net environmental benefits to the state.

(iii) The higher quantity of nonrenewable fuel is limited to either natural gas or hydrogen derived by reformation of a fossil fuel.

(B) Electricity generated by a small hydroelectric generation facility shall not result in the creation of a renewable energy credit unless the facility meets the requirements of subparagraph (A) or (D) of paragraph (1) of subdivision (e).

(C) Electricity generated by a conduit hydroelectric generation facility shall not result in the creation of a renewable energy credit unless the facility meets the requirements of subparagraph (B) of paragraph (1) of subdivision (e).

(D) Electricity generated by a facility engaged in the ~~combustion~~ *transformation* of municipal solid waste shall not result in the creation of a renewable energy ~~credit. This subparagraph does not apply to renewable energy credits that were generated before January 1, 2017, by a facility engaged in the combustion of municipal solid waste located in Stanislaus County that was operational prior to September 26, 1996, and sold pursuant to contracts entered into before January 1, 2017.~~ *credit unless it operates, on an annual basis, at not less than 20 percent below the permitted emissions of air contaminants, or the toxic air contaminants concentration limits, for the facility and the operator of the facility has reported its emissions to the applicable air pollution control district or air quality management district for a period of not less than five years immediately before the determination whether it is creating those credits.*

(i) "Renewables portfolio standard" means the specified percentage of electricity generated by eligible renewable energy resources that a retail seller or a local publicly owned electric utility is required to procure pursuant to this article.

(j) "Retail seller" means an entity engaged in the retail sale of electricity to end-use customers located within the state, including any of the following:

(1) An electrical corporation, as defined in Section 218.

(2) A community choice aggregator. A community choice aggregator shall participate in the renewables portfolio standard program subject to the same terms and conditions applicable to an electrical corporation.

(3) An electric service provider, as defined in Section 218.3. The electric service provider shall be subject to the same terms and conditions applicable to an electrical corporation pursuant to this article. This paragraph does not impair a contract entered into between an electric service provider and a retail customer prior to the suspension of direct access, originally suspended by the commission pursuant to Section 80110 of the Water Code, as it existed prior to its amendment by Chapter 337 of the Statutes of 2009, with that suspension being superseded and modified by Section 365.1 of this code.

(4) "Retail seller" does not include any of the following:

(A) A corporation or person employing cogeneration technology or producing electricity consistent with subdivision (b) of Section 218.

(B) The Department of Water Resources acting in its capacity pursuant to Division 27 (commencing with Section 80000) of the Water Code.

(C) A local publicly owned electric utility.

(k) "WECC" means the Western Electricity Coordinating Council of the North American Electric Reliability Corporation, or a successor to the corporation.